

**New Jersey Department of Health and Senior Services**  
**Communicable Disease Service**  
**Influenza Activity Summary**  
**Week Ending November 14, 2009(MMWR Week 45)**

**Influenza Activity Level:**     **WIDESPREAD**

NOTE: Two of three reporting parameters are at or above state baseline. Nine counties have 2 of 3 parameters above state baseline and 18 counties have had culture/PCR positive samples in the last 3 weeks. Seven counties have had both positive culture/PCR and 2 of 3 parameters above baseline.

No Activity- At least 2 of 3 parameters at or below state baseline **AND** no lab confirmed cases

Sporadic – At least 2 of 3 parameters above state baseline **AND** confirmed laboratory cases anywhere in the state within previous 3 weeks **OR** at least one laboratory confirmed outbreak in an institution anywhere in the state

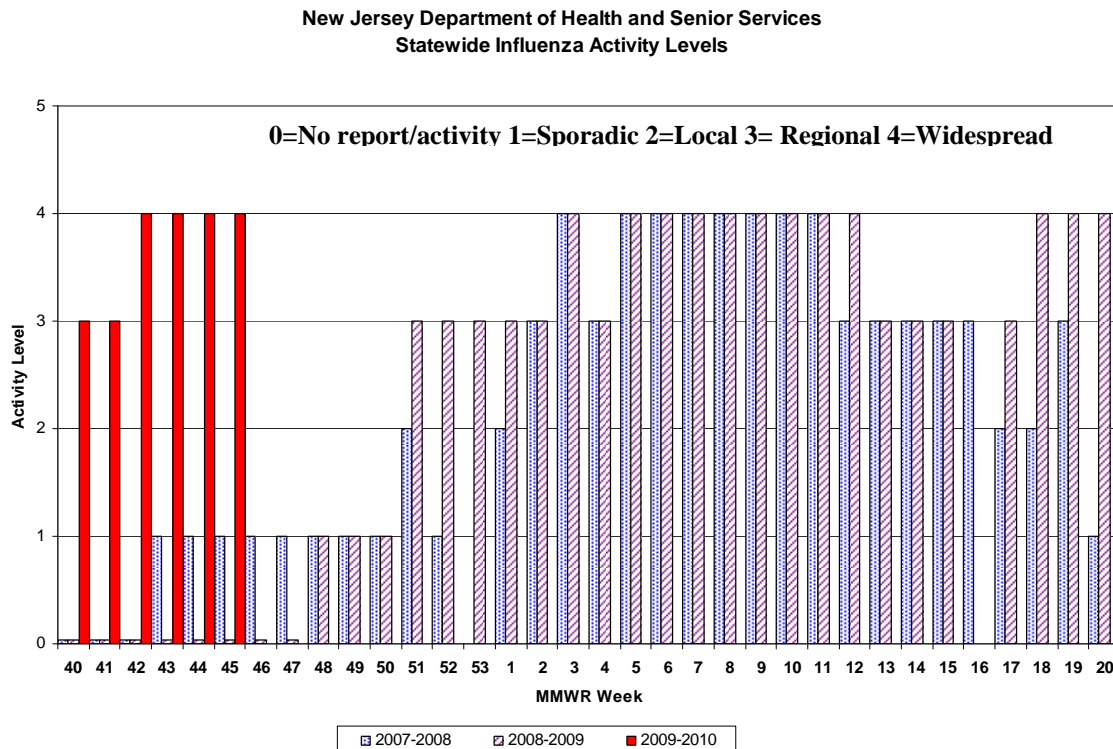
Local – At least 2 of 3 parameters above state baseline in a single county **AND** confirmed laboratory cases from that same county within the previous 3 weeks (other counties may be above baseline without lab confirmed cases) **OR** confirmed outbreaks in 2 or more institutions in a single county

Regional – At least 2 of 3 parameters above state baseline in  $\geq 2$  but  $\leq 10$  counties **AND** laboratory confirmed cases from these same counties in the past 3 weeks **OR** confirmed outbreaks institutions in  $\geq 2$  but  $\leq 10$  counties

Widespread – At least 2 of 3 parameters above state baseline in  $> 10$  counties **OR** institutional outbreaks in  $> 10$  counties **AND** lab confirmed influenza cases in previous 3 weeks.

Parameter = School, emergency department, or long term care weekly surveillance data

Off season baseline is calculated by taking the average of statewide percentages of ILI for a 4 year (2006, 2007, 2008, 2009) period during months when influenza is less likely to be circulating (May-August).



## **Regional Data**

<b>Region</b>	<b>Counties in Region</b>	<b>Activity Level</b>
NW Region	Morris, Passaic, Sussex, Warren	<b>REGIONAL</b>
NE Region	Bergen, Essex, Hudson	<b>REGIONAL</b>
CW Region	Hunterdon, Mercer, Somerset	<b>REGIONAL</b>
CE Region	Middlesex, Monmouth, Ocean, Union	<b>REGIONAL</b>
South Region	Atlantic, Burlington, Camden, Cape May, Salem, Cumberland, Gloucester	<b>REGIONAL</b>

No Activity- At least 2 of 3 parameters at or below state baseline **AND** no lab confirmed cases in the public health region

Sporadic – At least 2 of 3 parameters above state baseline **AND** confirmed laboratory cases anywhere in the public health region **OR** at least one laboratory confirmed outbreak in an institution anywhere in the public health region

Local – At least 2 of 3 parameters above state baseline in a single county of a public health region **AND** confirmed laboratory cases from that same county within the previous 3 weeks (other counties may be above baseline without lab confirmed cases) **OR** confirmed outbreaks in 2 or more institutions in a single county of a public health region

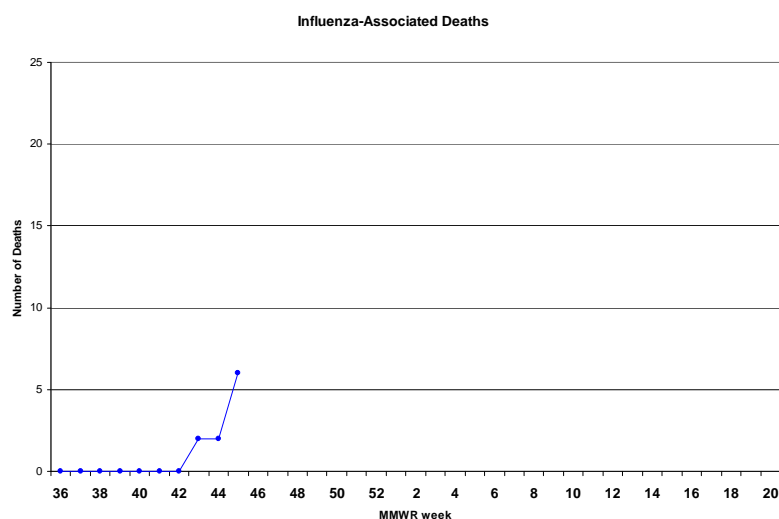
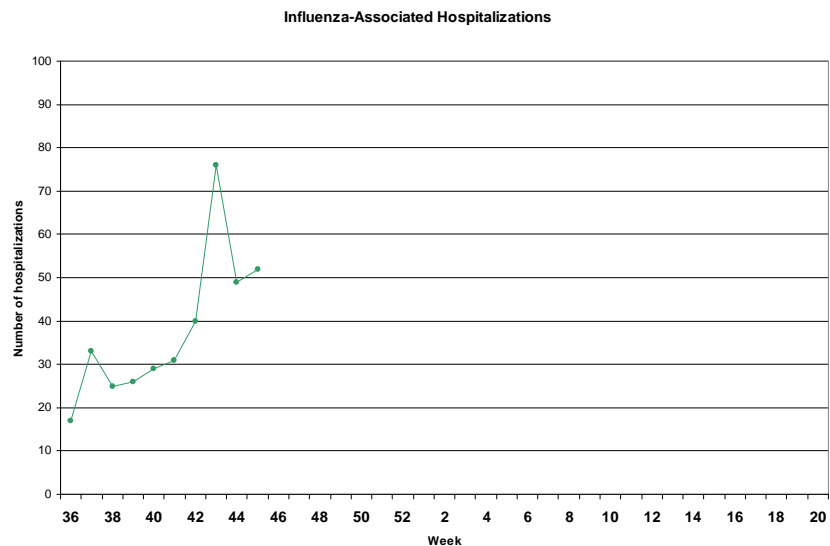
Regional – At least 2 of 3 parameters above state baseline in at least half of the counties of public health region **AND** laboratory confirmed cases from these same counties in the past 3 weeks **OR** confirmed outbreaks institutions in at least half of counties of public health region counties

Widespread – Not used for public health region data

## Influenza Hospitalizations/Deaths

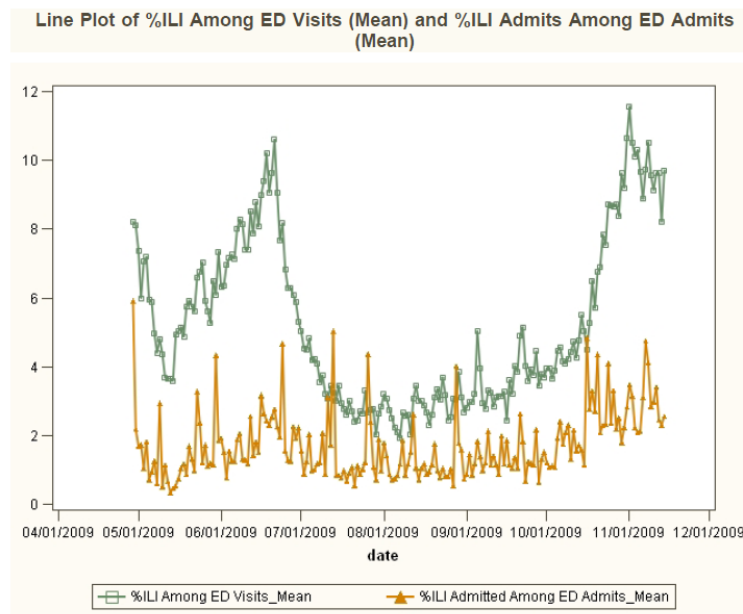
Influenza-associated hospitalizations are reported weekly from a subset of hospital facilities. Facilities report patients hospitalized with either laboratory-confirmed (rapid, PCR, culture) influenza or patients admitted with influenza-like illness. Data from influenza-associated deaths are extracted from CDRSS. Only deaths with laboratory confirmed influenza are included in these statistics.

<b>NJ Influenza-Associated Hospitalizations and Deaths by Current MMWR week and Cumulative Total (Week 36 to present)</b>		
	<b>Hospitalizations</b>	<b>Deaths</b>
<b>Week 45</b>	52	6
<b>Cumulative</b>	378	10



## **Syndromic Surveillance – Enhanced Emergency Department (ED) Surveillance for Influenza-like Illness (ILI)**

**NOTE:** *The number of ED visits, hospital admissions, ED visits due to ILI, and hospital admissions due to ILI are reported each day by acute care facilities statewide. These data are captured via daily surveys sent using the Hippocrates system.*



### **Summary of Emergency Department (ED) Visits and Admits Surveillance**

The number of ED visits and hospital admissions are reported each day by New Jersey acute care facilities statewide via daily surveys sent using the Hippocrates system. Daily surveillance for ED visits and admissions from these hospital EDs resulted in six ED volume blips (Essex, Hudson, Hunterdon, Mercer, Newark, and Union) and five admission blips (Essex, Hudson, Monmouth, and Union) from 11/8/09 to 11/14/09. Seven blip responses received and three were associated with increased ILI activities.

### **Summary of Enhanced Emergency Department (ED) Surveillance for Influenza-like Illness (ILI)**

During 11/8/09-11/14/09, 80 acute care facilities in NJ reported an aggregate total of 6,014 ED visits due to ILI (9.2% of total ED visits) and an aggregate total of 347 admissions due to ILI (5.8% of total ILI ED visits). These reports resulted in nine ED ILI visit blips (Bergen, Essex, Middlesex, Newark, and Union). There was a decrease in ILI activity for the week ending 11/14/09 when compared to the previous week ending 11/7/09 ( $p = 0.0081$ ). The mean percentage of ED visits for ILI during the week ending 11/14/09 was 9.5%, compared to 10% for the previous week. The mean percentage of ED visits due to ILI ranged from 8.2% to 10.5% during 11/8/09 – 11/14/09. The mean percentage of ED visits due to ILI (averaged over the previous four influenza seasons) for this same week (MMWR Week 45) was approximately 4%.

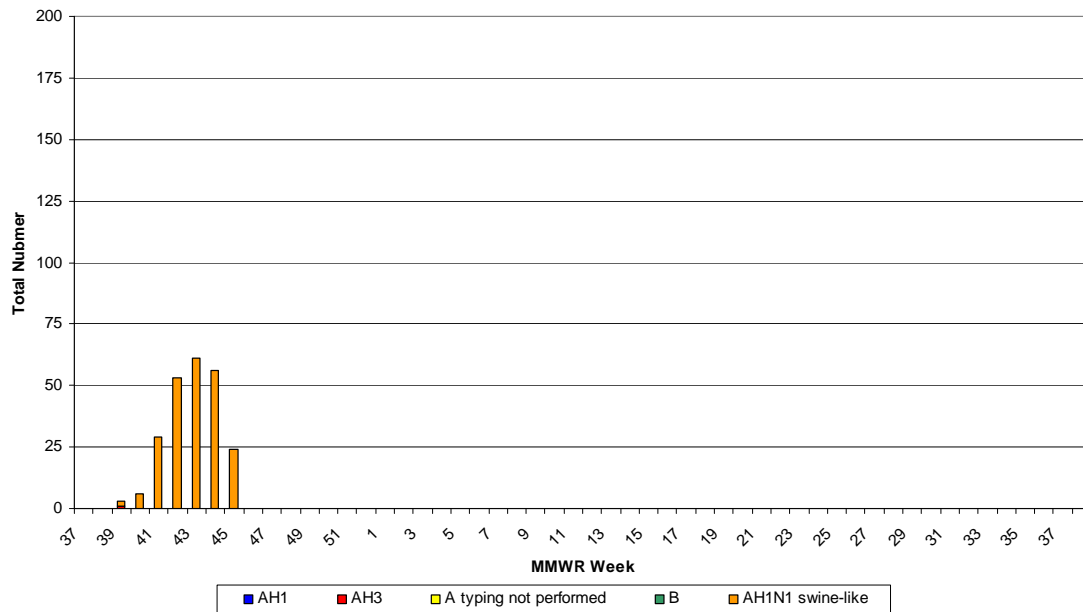
## **Laboratory Surveillance**

As of week 45, 229 samples were found to be positive by viral culture or PCR for influenza AH1, AH3, novel AH1N1 and influenza B. Please see graph on next page for weekly distribution. Numbers of specimens tested and total number positive by rapid influenza testing are displayed by county at the end of this report.

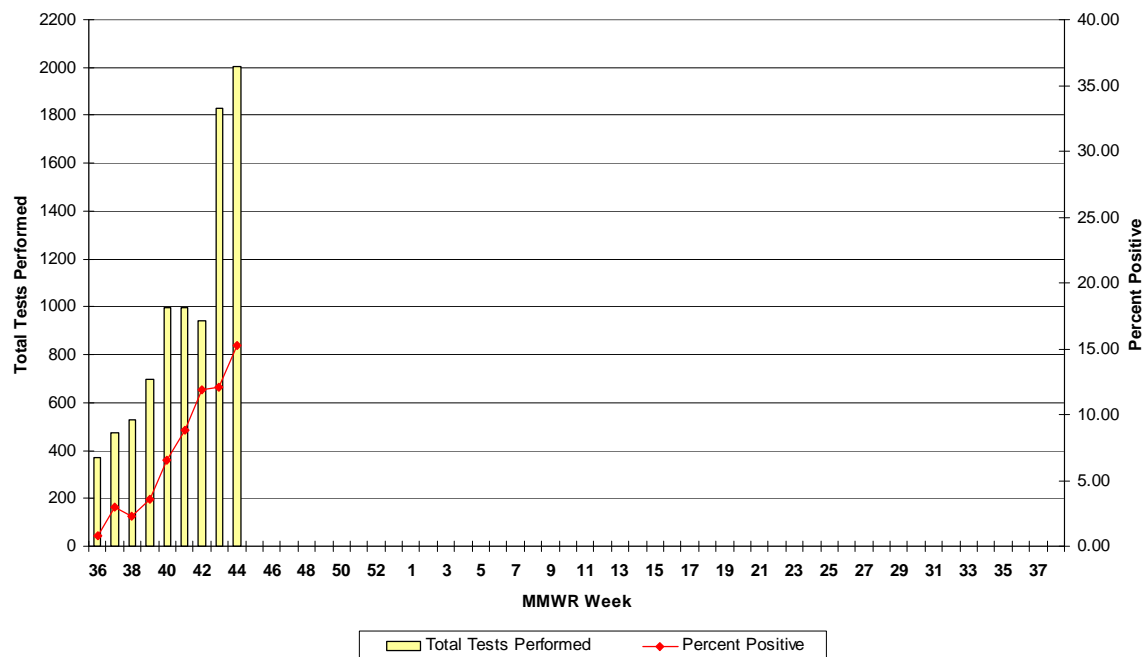
	MMWR Week 40 to present week					MMWR Week 43, 44, 45				
	A H1	A H3	A (subtyping not done)	B	2009 Influenza A H1N1	A H1	A H3	A (subtyping not done)	B	2009 Influenza A H1N1
Atlantic County	0	0	0	0	17	0	0	0	0	8
Bergen County	0	0	0	0	9	0	0	0	0	6
Burlington County	0	0	0	0	6	0	0	0	0	3
Camden County	0	0	0	0	36	0	0	0	0	25
Cape May County	0	0	0	0	14	0	0	0	0	9
Cumberland County	0	0	0	0	3	0	0	0	0	3
Essex County	0	0	0	0	2	0	0	0	0	0
Gloucester County	0	0	0	0	2	0	0	0	0	2
Hudson County	0	0	0	0	0	0	0	0	0	0
Hunterdon County	0	0	0	0	22	0	0	0	0	9
Mercer County	0	0	0	0	18	0	0	0	0	7
Middlesex County	0	0	0	0	25	0	0	0	0	16
Monmouth County	0	0	0	0	13	0	0	0	0	10
Morris County	0	0	0	0	19	0	0	0	0	12
Ocean County	0	0	0	0	1	0	0	0	0	1
Passaic County	0	0	0	0	6	0	0	0	0	4
Salem County	0	0	0	0	0	0	0	0	0	0
Somerset County	0	0	0	0	6	0	0	0	0	3
Sussex County	0	0	0	0	1	0	0	0	0	1
Union County	0	0	0	0	19	0	0	0	0	16
Warren County	0	0	0	0	10	0	0	0	0	6
Unknown	0	0	0	0	0	0	0	0	0	0
<b>State Total</b>	0	0	0	0	229	0	0	0	0	141

\*Rapid data is acquired from facilities reporting rapid influenza tests via NREVSS or CDRSS ILI module. Culture/PCR results are obtained from the LIMS system at PHEL or hospital viral culture laboratories via NREVSS. County of residence as provided by the laboratory is used to assign culture results to a county. If county of residence is not available, the county of the facility reporting is utilized.

**Influenza Laboratory Report  
Positive Specimens by PCR and Culture by Week  
2009-2010 Influenza Season**



**Influenza Rapid Antigen Tests  
Total and Percent Positive  
2008-2009 Influenza Season**

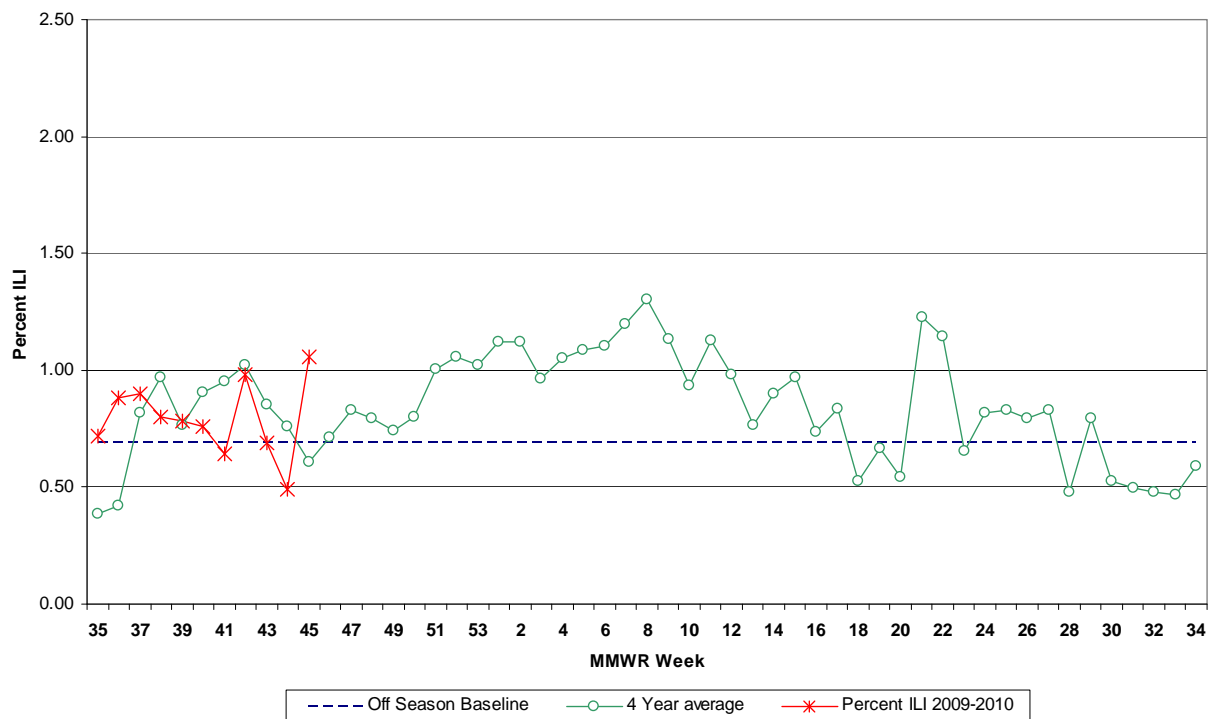


## Influenza-like Illness (ILI) Surveillance\*

### Long-term Care Facilities

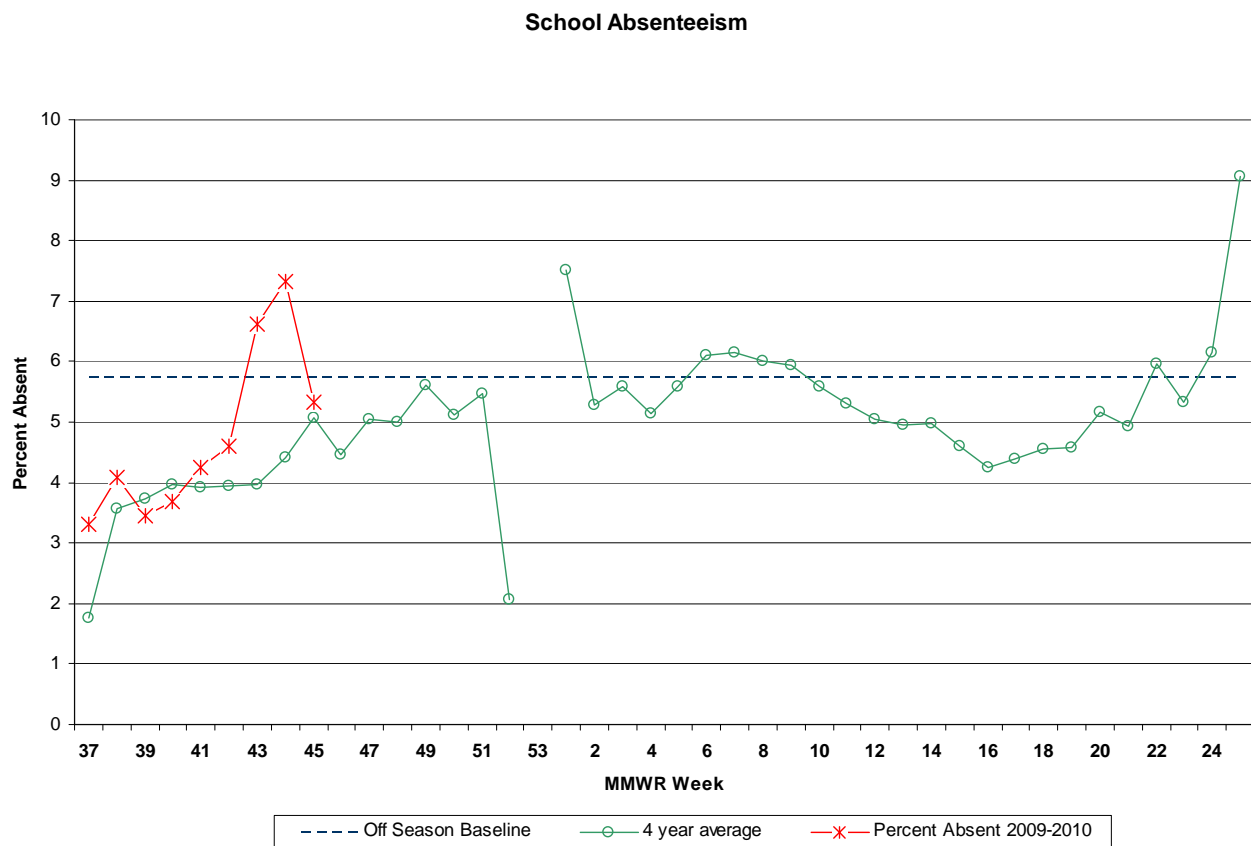
During week 45, 1.06% ILI was reported statewide from long term care facilities. This is a increase over the previous week (0.49%). The percent ILI for each county ranged from 0.00% to 5.77%. The percent ILI for this same week last year was 0.52% in long-term care facilities. The percent ILI for the northwest (2.75%) and northeast (1.79%) public health regions were above the state baseline (0.69%). One new respiratory outbreak in an institutional setting was received in week 45.

Influenza-like Activity - Long Term Care Facilities



## School Absenteeism

During week 45, schools reported 5.33% absenteeism. This is a decrease over the previous week (7.33). The percent ILI for each county ranged from 3.28 to 8.27%. The percent absent for this same week last year was 4.72%. The percent ILI for the northwest (6.43) public health region was found to be above the state baseline (5.73%).



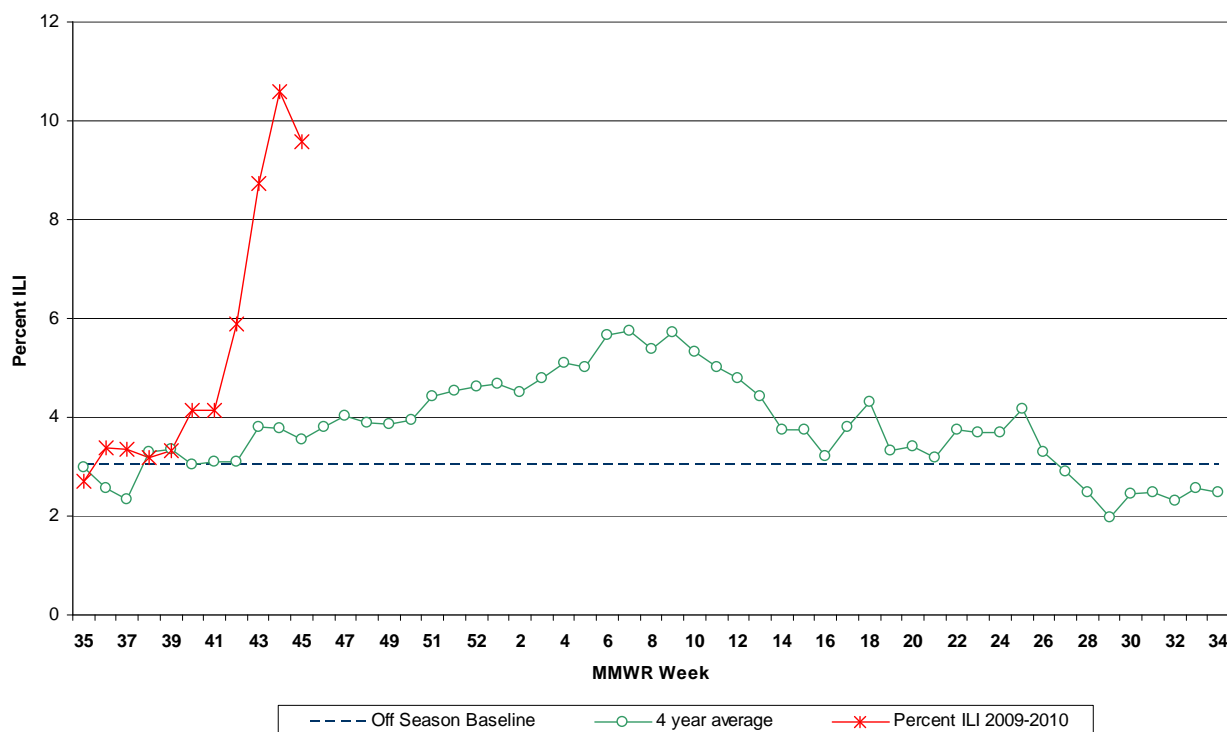


## Emergency Departments

**NOTE:** Data presented below is from daily ED data extracted from Hippocrates survey responses for Tuesday of each week. Because this data only represents one day of data, it is likely less accurate for detecting true trends than the syndromic data presented above.

During week 45, 9.59% of ILI was reported statewide from emergency departments. This is a decrease over the previous week (10.60%). The percent ILI for each county ranged from 4.54 to 29.50%. The percent ILI for this same week last year was 2.95% in emergency departments. The percent ILI for the northwest (18.26%), northeast (5.56%), central west (11.39%), central east (10.55%), and south (8.72%) public health regions were above the state baseline (3.04%).

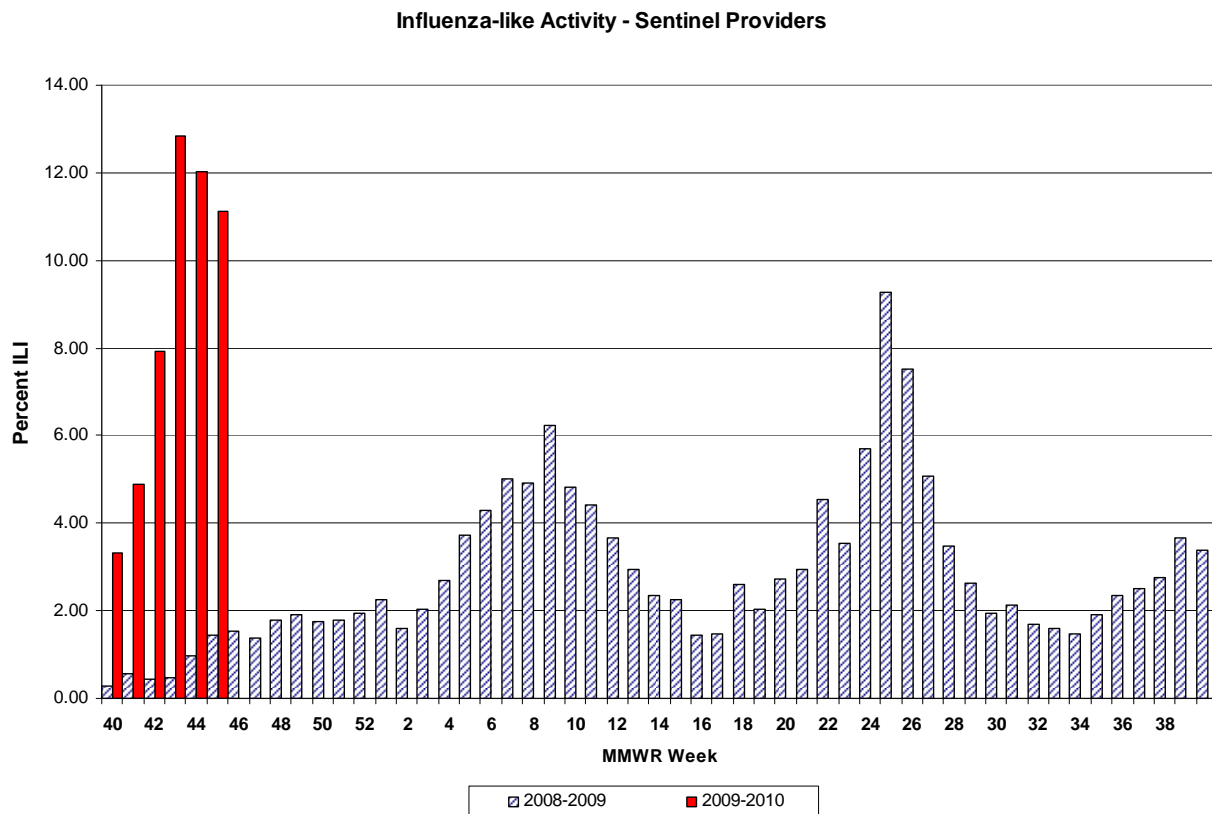
Influenza-like Activity - Emergency Departments



## **Sentinel Provider Surveillance**

During week 45, 11.12% of sentinel provider patient visits were due to ILI. These data reflect reports from twenty-two (31%) of the enrolled sentinel providers.

During week 44, 12.02% of sentinel provider patient visits were due to ILI. These data reflect reports from twenty-nine (41%) of the enrolled sentinel providers.



## **Pediatric Influenza Surveillance**

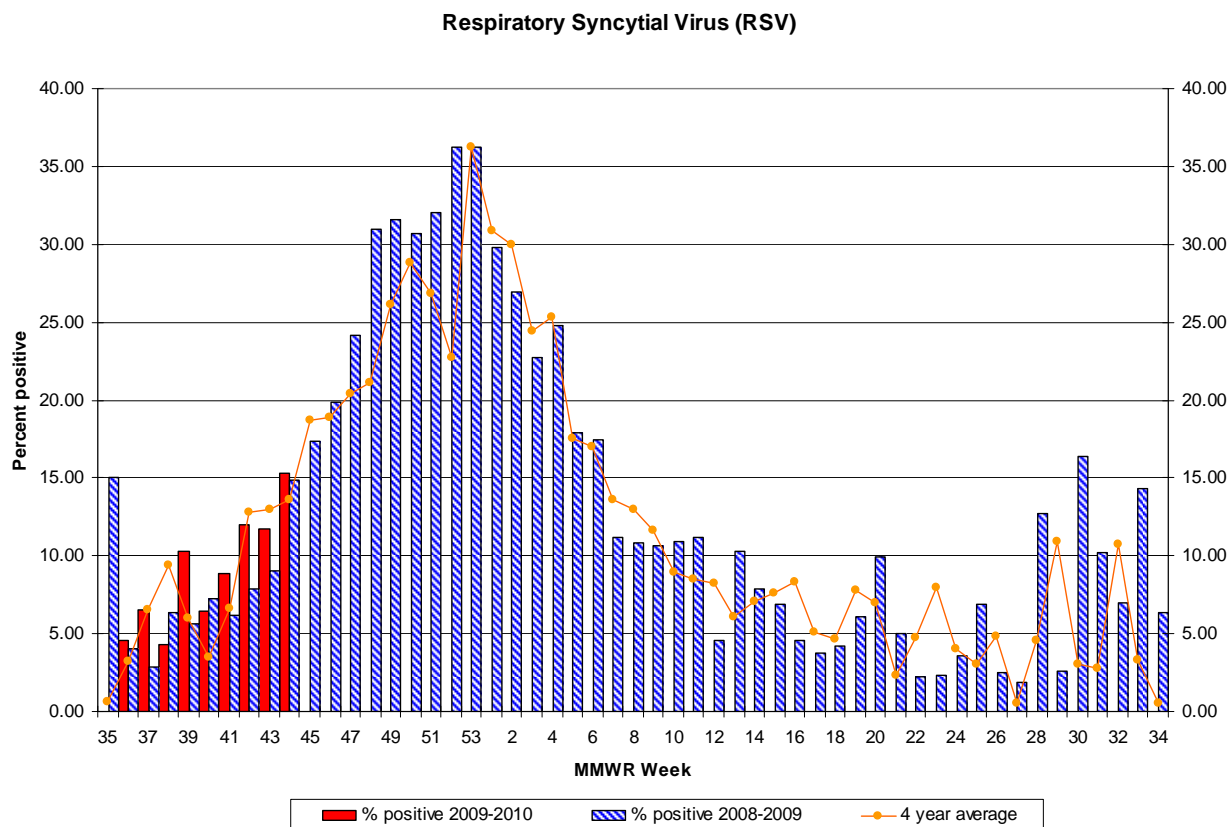
To date, NJDHSS has received 12 reports of pediatric influenza meeting the case definition.

## **122 City Mortality Report**

During week 44, 5.22% of all deaths reported by the vital statistics offices in 6 New Jersey cities (i.e., Camden, Elizabeth, Jersey City, Newark, Paterson, Trenton) were due to pneumonia or influenza. This is an increase over the previous week (3.57%). The percentage of death due to pneumonia or influenza for this same week last year was 0.92%.

## **RSV Reports**

During week 44, 15.34% of all RSV samples tested were positive. This is an increase over the previous week 11.74%. The percent of samples positive for RSV for this same week last year was 14.86%.



## **Additional Information**

For additional information regarding influenza surveillance please visit the following websites.

<http://nj.gov/health/flu/surveillance.shtml>

<http://www.cdc.gov/flu/>

\* Off Season baseline is calculated by taking the average of statewide percentages of ILI for a 3 year (2006, 2007, 2008, 2009) period during months when influenza is less likely to be circulating (May-August).

\*\*Four year average is an average of the 2005-2006, 2006-2007, 2007-2008, 2008-2009 influenza seasons.

	Long Term Care			Schools			Hospital Emergency Department		
County	# Enrolled	# Reports Rec'd	% ILI	# Enrolled	# Reports Rec'd	% Absent	# Enrolled	# Reports Rec'd	% ILI
<b>November, 10, 2009 12:00 AM</b>	<b>MMRW WEEK 45</b>								
ATLANTIC	4	1	1.20	19	12	6.16	4	1	7.33
BERGEN	3	0	0.00	25	13	4.93	6	5	6.29
BURLINGTON	6	2	0.00	115	77	5.16	3	3	7.34
CAMDEN	7	0	0.00	17	0	0.00	7	6	6.16
CAPE MAY	6	5	0.00	11	9	7.33	1	1	26.45
CUMBERLAND	6	2	1.32	19	10	8.27	3	3	8.17
ESSEX	18	4	2.99	45	13	4.12	11	10	5.45
GLOUCESTER	5	3	0.00	4	4	4.80	2	2	11.86
HUDSON	10	3	1.14	117	81	5.21	6	4	4.54
HUNTERDON	4	4	0.22	49	47	4.34	1	1	6.17
MERCER	11	8	0.12	26	25	6.52	5	5	13.19
MIDDLESEX	2	0	0.00	134	75	4.61	5	4	10.58
MONMOUTH	14	4	0.00	24	20	7.70	5	5	8.02
MORRIS	2	0	0.00	13	12	5.18	4	4	18.91
OCEAN	6	1	0.00	81	60	6.10	4	4	13.22
PASSAIC	9	2	5.77	28	8	3.40	6	0	0.00
SALEM	4	2	0.52	19	2	3.28	1	1	7.04
SOMERSET	6	4	0.43	80	49	4.55	2	1	6.45
SUSSEX	5	5	0.24	22	22	7.92	2	2	29.50
UNION	4	1	0.00	153	79	4.89	5	5	10.42
UNKNOWN	0	0	0.00	1	0	0.00	0	0	0.00
WARREN	8	0	0.00	36	0	0.00	2	2	5.19
<b>NW Region</b>	24	7	2.75	99	42	6.43	14	8	18.26
<b>NE Region</b>	31	7	1.79	187	107	5.10	23	19	5.56
<b>CW Region</b>	21	16	0.23	155	121	4.96	8	7	11.39
<b>CE Region</b>	26	6	0.00	392	234	5.33	19	18	10.55
<b>South Region</b>	38	15	0.50	204	114	5.68	21	17	8.72
<b>State Total</b>	<b>140</b>	<b>51</b>	<b>1.06</b>	<b>1037</b>	<b>618</b>	<b>5.33</b>	<b>85</b>	<b>69</b>	<b>9.59</b>

County	RSV Tests		Flu Tests		
	# Positive	Total Tests Performed	# Positive	Total Tests Performed	
<b>November, 10, 2009 12:00 AM</b>	<b>MMRW WEEK 45</b>				
ATLANTIC	6	48	12	80	
BERGEN	0	0	0	0	
BURLINGTON	3	22	16	116	
CAMDEN	1	13	0	0	
CAPE MAY	0	4	7	46	
CUMBERLAND	1	5	0	0	
ESSEX	5	29	24	333	
GLOUCESTER	0	13	0	0	
HUDSON	10	30	7	62	
HUNTERDON	1	5	10	57	
MERCER	5	44	12	37	
MIDDLESEX	11	86	0	0	
MONMOUTH	10	142	129	652	
MORRIS	0	5	29	152	
OCEAN	5	15	0	0	
PASSAIC	19	63	18	135	
SALEM	0	0	2	19	
SOMERSET	0	0	0	0	
SUSSEX	0	9	16	156	
UNION	12	42	0	30	
WARREN	0	5	23	129	
<b>NW Region</b>	19	82	86	572	
<b>NE Region</b>	15	59	31	395	
<b>CW Region</b>	6	49	22	94	
<b>CE Region</b>	38	285	129	682	
<b>South Region</b>	11	105	37	261	
<b>State Total</b>	<b>89</b>	<b>580</b>	<b>305</b>	<b>2004</b>	